In The Detailed Description Of The Invention:

Please amend page 6, paragraph [0022] to appear as follows:

[0022] (Currently Amended) Referring to ~~FIGURE 2~~ FIGURES 1 and 4, an example of a possible configuration for the accelerometer 12 is included as an illustrative example of the three accelerometers 12, 15, and 17. The accelerometer 12 is part of an inertial measurement unit 13 (IMU), as was previously discussed. The accelerometer 12 includes a shared capacitor sensor 24, two oscillators 25, 26, a frequency subtraction device 28, and a Linear Lookup Table (LLT) or linearizer 29.

Please amend page 7, paragraph [0023] to appear as follows:

[0023] (Currently Amended) The shared capacitor sensor 24 includes two parallel flexure plates 30, 32, a single fixed plate 34, and a metal housing structure 36. The shared capacitor sensor 24 generates phase shift capacitance signals as a function of a periodic signal from the signal generator 37 and in response to acceleration of the aeronautical system 10, as will be discussed later.

Please amend pages 9-10, paragraph [0033] to appear as follows:

[0033] (Currently Amended) The distance, d, is the acceleration variable ($F = ma$), which determines oscillator frequency, f, and $f = kd$. As the flexure plates 30, 32 sense acceleration, either linear ($F = ma$) or angular-tangential, each flexure plate will deflect in response to the sum of the forces acting thereon. Because the control mechanism keeps the flexure plates in the xy-plane, the total acceleration seen by each flexure plate is the sum of the linear acceleration and the tangential acceleration ($a_l + a_t$). This generates output frequency $f_1 = (a_l + a_t)k$ and $f_2 = (a_l + a_t)k$. For equal distances of r_1 and r_2, the expression $f_1 = k_1 a_l + k_2 a_t$ ~~an~~ and $f_2 = k_3 a_l - k_4 a_t)$, where k_1 and k_3 are equal if $r_1 = r_2$. Otherwise they are calculated or modeled for the exact expression. In this simplified

case, however, f_1-f_2= (k_2 a_t) - (-k_4 a_t) and therefore a_t = (f_1 - f_2)/2 * k.

Please amend page 11, paragraph [0039] to appear as follows:

[0039] (Currently Amended) The frequency subtraction device 28 receives the oscillator signals (f_1 and f_2) and generates the difference thereof, i.e. f_1 - f_2. Important to note is that the polarities of both f_1 and f_2 are determined before this difference is calculated. An overall frequency signal is generated from the frequency subtraction device ~~26~~ 28. In other words, the polarity of f_1 is positive if d_1 is increasing and negative if d_1 is decreasing. Likewise, the polarity of f_2 is positive if d_2 is increasing and negative when d_2 is decreasing. Determinations of increasing or decreasing d_1 and d_2 may generate from, for example, by the processor 14.

Please amend page 12, paragraph [0042] to appear as follows:

[0042] (Currently Amended) Statistical filtering of the linearized data somewhere significantly above the maximum flexure frequency also occurs in either the linearizer 29 or the processor 14 to reduce the overall noise impact on the system 10. Herein, the filter 31 is included in the linearizer 29.